

AMENDMENTS TO THE SPECIFICATION

Please replace paragraph [0004] with the following amended paragraph:

Of the lithium nonaqueous electrolyte secondary batteries that have been developed, many have positive electrode active material composed of LiCoO_2 , LiNiO_2 , LiMnO_2 , LiMn_2O_4 , LiFeO_2 or other lithium compound oxide and negative electrode active material composed of a carbonaceous material, since such batteries are nonaqueous electrolyte secondary batteries of the 4V class with particularly high energy density. The nonaqueous solvent used for such nonaqueous electrolyte secondary batteries needs to have high permittivity and to have high ion conductivity over a broad temperature range in order to dissociate the electrolyte. Accordingly an organic solvent is used, for example a carbonate such as propylene carbonate (PC), ethylene carbonate (EC), butylene carbonate (BC), dimethyl carbonate (DMC), diethyl carbonate (DEC) or ethyl methyl carbonate (EMC), or a lactone such as γ -butyrolactone, or alternatively an ether, a ketone, or an ester, etc. In particularly wide use are solvent mixtures of EC plus a low-viscosity noncyclic carbonate such as DMC, DEC or EMC.

Please replace paragraph [0022] with the following amended paragraph:

For the positive electrode active material there will be used, either singly, or plurally in a mixture, a lithium transition metal compound oxide, expressed as Li_xMO_2 (M being at least one

of Co, Ni and Mn), such as LiCoO_2 , LiNiO_2 , $\text{LiNi}_y\text{Co}_{1-y}\text{O}_2$ ($y = 0.01$ to 0.99) or LiMnO_2 , $\text{LiCo}_x\text{Mn}_y\text{Ni}_z\text{O}_2$ ($x + y + z = 1$), or a spinel-type lithium cobalt manganese oxide, expressed as LiMn_2O_4 . As necessary, said lithium transition metal compound oxide may contain different metal elements such as titanium, magnesium, zirconium and aluminum.

Please replace paragraph [0050] with the following amended paragraph:

In comparative examples 8 to 11 where neither VC nor D2PO is added, as the packing density of the negative electrode constituted of carbonaceous material rises from 1.3 to 1.9 g/ml, the initial capacity decreases slightly but the capacity maintenance ratio decreases drastically and also the battery swelling increases markedly. However, when both VC and D2PO are added as in practical examples 15 to 18, then even though the packing density of the negative electrode constituted of carbonaceous material rises from 1.3 to 1.9 g/ml, the initial capacity maintains substantially the same level as in comparative examples 8 to 11; moreover the capacity maintenance ratio decreases only slightly and the battery swelling increases only slightly. While such high packing density of the negative electrode active material is implemented for the sake of higher capacity of the battery, the effects of adding VC and D2PO to the electrolyte manifest saliently when the negative electrode packing density is 1.3 g/ml or above, and even more saliently when it is 1.5 g/ml or above. A packing density of less than 1.3 g/ml for said negative electrode active material will result in the effects that arise from adding VC and D2PO to the electrolyte not being of any benefit and is therefore undesirable. As the packing density of said negative electrode

active material is increased, the initial capacity and the long-term capacity maintenance ratio at high temperature gradually fall while the battery swelling becomes larger. In addition, batteries with packing density exceeding 1.9 g/ml are difficult to manufacture. For these reasons the packing density should preferably be no more than 1.9 g/ml, although this is not a critical limit.

Please replace paragraph [0053] with the following amended paragraph:

In comparative examples 12 to 17 where neither VC nor D2PO is added, as the thickness of the case falls from 0.50 to the thin 0.15 mm, the initial capacity decreases slightly but the capacity maintenance ratio decreases drastically and also the battery swelling increases markedly. However, when both VC and D2PO are added as in practical examples 19 to 24, then even though the thickness of the case falls from 0.50 to the thin 0.15 mm, the initial capacity maintains substantially the same level as in comparative examples 12 to 17, while moreover the capacity maintenance ratio is drastically higher than in comparative examples 12 to 17 and the battery swelling is drastically smaller than in comparative examples 12 to 17. Such effects of adding VC and D2PO to the electrolyte are influenced by the thickness of the case, manifesting saliently when the thickness is 0.50 to 0.15 mm. A thickness exceeding 0.50 mm for said case is not desirable as it would result in the effects that arise from adding VC and D2PO to the electrolyte not being of any benefit. Neither is a thickness of less than 0.15 mm be desirable, as it would result in a marked fall in the capacity maintenance ratio as well as a marked increase in battery swelling.